

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1.-2. (Cancelled)

Claim 3. (Currently Amended) ~~The method according to Claim 2, wherein:~~

A method of converting an analog actual signal to a digital desired signal using a circuit that includes a comparator having first and second input ports and one output port and a digital-to-analog converter, said method comprising:

feeding the analog actual signal to said second input port of the comparator;

feeding an analog output signal of the digital-to-analog converter to said first input port of the comparator;

feeding the digital desired signal as a digital input signal to the digital-to-analog converter; and

adapting the digital input signal fed to the digital-to-analog converter as a function of an output signal of the comparator, in a definable number of iterative steps, between definable lower and upper thresholds according to a balancing process, the digital input signal in each case fed to the digital-to-analog converter corresponding to the digital desired signal to which the analog actual signal is converted; wherein,

the analog actual signal comprises a burst that includes a definable number of pulses;

said step of feeding said analog actual signal comprises feeding a ~~preselectable~~ ~~reference~~ preselected pulse, from a preselected position within the burst, is fed to the second input port of the comparator; and

based on the ~~reference~~ preselected pulse, in the comparator, a signal value is processed which corresponds to [[the]] a pulse center thereof.

Claim 4. (Currently Amended) The method according to Claim [[1,]] 3 wherein the number of the definable iterative steps corresponds to a bit length by which the digital desired signal is expressed.

Claim 5. (Currently Amended ~~The method according to Claim 1,~~
A method of converting an analog actual signal to a digital desired signal using a circuit that includes a comparator having first and second input ports and one output port and a digital-to-analog converter, said method comprising:

feeding the analog actual signal to said second input port of the comparator;

feeding an analog output signal of the digital-to-analog converter to said first input port of the comparator;

feeding the digital desired signal as a digital input signal to the digital-to-analog converter; and

adapting the digital input signal fed to the digital-to-analog converter as a function of an output signal of the comparator, in a definable number of iterative steps, between definable lower and upper thresholds according to a balancing process, the digital input signal in each case fed to the digital-to-analog converter corresponding to the digital desired signal to which the analog actual signal is converted;

wherein the digital desired signal is verified by a procedure in which, $[[\cdot]]$

for a first additional iterative step, a definable signal value is subtracted from the analog actual signal forming a diminished actual signal;

the diminished actual signal is then fed to $[[an]]$ said second input port of the comparator;

the output signal of the comparator is checked to determine whether it falls below the analog output signal of the digital-to-analog converter, which is present at the ~~other~~ first input port of the comparator and is generated from the digital desired signal to be verified; and

for a second additional iterative step, a ~~correspondingly~~ corresponding definable signal value is added to the analog actual signal forming an augmented actual signal;

the augmented actual signal is then fed to $[[an]]$ said second input port of the comparator;

the output signal of the comparator is checked to determine whether it exceeds the analog output signal of the digital-to-analog converter, which is present at the ~~other~~ first input port of the comparator and is generated from the digital desired signal to be verified; and

the digital desired signal is assumed to be correct when a result of the testing steps in the first and second additional iterative steps ~~[[was]]~~ is affirmative.

Claim 6. (Currently Amended) A circuit for ~~adjusting~~ converting an analog actual signal to a desired digital signal, said circuit comprising:

a comparator having ~~[[two]]~~ first and second analog input ports and one analog output port; and

a digital-to-analog converter having one digital input port and one analog output port; wherein,

the analog output port of the digital-to-analog converter is connected with ~~[[one]]~~ the first input port of the comparator;

the analog actual signal is fed to the ~~other~~ second input port of the comparator; and

the analog output port of the comparator is connected with an electronic component for generating the desired digital signal which is fed to the digital input port of the digital-to-analog converter; wherein, ~~[[.]]~~

the analog actual signal comprises a burst that includes a definable number of
pulses;

said step of feeding said analog actual signal comprises feeding a preselected
pulse, from a preselected position within the burst to the second input port of the comparator;
and

based on the preselected pulse, in the comparator, a signal value is processed
which corresponds to a pulse center thereof.